

KCC 4911  
K-C 17,719

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) An absorbent structure comprising a absorbent member at least partially made of fibers having first, second and third regions, a first stretchable reinforcing member located between the first region and the second region, and a second stretchable reinforcing member located between the second region and the third region, said first and second stretchable reinforcing members for reinforcing the absorbent member to maintain the structural integrity of the absorbent member under loads experienced by the absorbent structure.
2. (Original) An absorbent structure as set forth in claim 1 wherein the reinforcing members are adapted to return substantially to an original dimension for elongation of the absorbent structure in a direction up to about 300% of its relaxed length.
3. (Original) An absorbent structure as set forth in claim 1 wherein the reinforcing members are adapted to return substantially to an original dimension for elongation of the absorbent structure in a direction up to about 100% of its relaxed length.
4. (Original) An absorbent structure as set forth in claim 1 wherein the absorbent structure is adapted to stretch.
5. (Original) An absorbent structure as set forth in claim 4 wherein the absorbent structure is elastic.

KCC 4911  
K-C 17,719

6. (Original) An absorbent structure as set forth in claim 4 wherein some fibers in each of said regions of the absorbent member are entangled with fibers from another of the regions, and other fibers in each of said regions are entangled with a respective one of the reinforcing members.

7. (Original) An absorbent structure as set forth in claim 1 wherein the reinforcing members comprise strands arranged in a pattern in which at least some of the strands intersect one another at junctions to define openings in the reinforcing members.

8. (Original) An absorbent structure as set forth in claim 7 wherein the pattern of strands in the first reinforcing member is substantially the same as the pattern of strands in the second reinforcing member.

9. (Original) An absorbent structure as set forth in claim 7 wherein the second reinforcing member is offset from the first reinforcing member so that strands in the second reinforcing member are at least partially in registration with the openings in the first reinforcing member.

10. (Original) An absorbent structure as set forth in claim 7 wherein the absorbent member has a first axis extending generally lengthwise thereof and a second axis extending generally widthwise thereof, none of the strands extending parallel to the first or second axis of the absorbent member.

11. (Original) An absorbent structure as set forth in claim 7 wherein said reinforcing members comprise a first set of generally parallel strands and a second set of generally parallel strands that cross said first set of strands at right angles with the first set of strands.

KCC 4911  
K-C 17,719

12. (Original) An absorbent structure as set forth in claim 11 wherein the strands are joined to each other at least at some of the junctions.

13. (Original) An absorbent structure as set forth in claim 7 wherein said reinforcing members comprise a first set of generally parallel strands and a second set of strands that cross said first set of strands at non-orthogonal angles to the first set of strands.

14. (Original) An absorbent structure as set forth in claim 13 wherein said reinforcing members comprise a third set of strands that cross said first set of strands at non-orthogonal angles to the first set of strands and also cross said second set of strands.

15. (Original) An absorbent structure as set forth in claim 7 wherein the strands are arranged so that said openings are diamond shaped.

16. (Original) An absorbent structure as set forth in claim 7 wherein the reinforcing members are elastically stretchable, the absorbent member having rugosities formed therein by elastic contraction of the reinforcing members.

17. (Original) An absorbent structure as set forth in claim 4 wherein the reinforcing members have a non-uniform peripheral shape generally corresponding to a peripheral shape of the absorbent member.

18. (Original) An absorbent article adapted to be worn by a wearer, the absorbent article comprising a liquid permeable topsheet layer, a backsheet layer and an absorbent structure as set forth in claim 1 disposed between the topsheet layer and the backsheet layer.

KCC 4911  
K-C 17,719

19. (Original) An absorbent article comprising an absorbent structure as set forth in claim 1 wherein the article is selected from the group consisting of diapers, training pants, adult incontinence garments, feminine napkins including tampons and interlabials, tissues, towels, surgical drapes and gowns, gloves, covers, bed mats, bandages, and wipes.

20. (Original) An absorbent structure comprising an absorbent member at least partially made of fibers and a reinforcing member at least partially embedded in the absorbing member for maintaining the structural integrity of the absorbent member, the absorbent member having a first axis extending generally lengthwise of the absorbent member and a second axis perpendicular to said first axis extending generally widthwise of the absorbent member, the reinforcing member comprising a first set of substantially parallel strands, and a second set of strands that cross said first set of strands at junctions in a non-orthogonal relationship to define openings in the reinforcing member.

21. (Original) An absorbent structure as set forth in claim 20 wherein the second strands are generally parallel to each other.

22. (Original) An absorbent structure as set forth in claim 20 wherein the first set of strands extends generally parallel to one of said first and second axes.

23. (Original) An absorbent structure as set forth in claim 20 wherein the first set of strands extend generally parallel to the first axis of the absorbent member so that the reinforcing member is stretchable along at least said second

KCC 4911  
K-C 17,719

axis of said absorbent structure.

24. (Original) An absorbent structure as set forth in claim 20 wherein the strands are joined to each other at least at some of the junctions.

25. (Original) An absorbent structure as set forth in claim 20 wherein said reinforcing members comprise a third set of strands that cross said first set of strands in a non-orthogonal orientation and also cross said second set of strands.

26. (Original) An absorbent structure as set forth in claim 25 wherein the strands in the second set of strands are joined to strands in the third set of strands at least at some junctions where the sets cross.

27. (Original) An absorbent structure as set forth in claim 25 wherein the strands of the second set are arranged generally perpendicular to the strands of the third set.

28. (Original) An absorbent structure as set forth in claim 20 wherein the reinforcing member is made from a material which is not substantially stretchable.

29. (Original) An absorbent structure as set forth in claim 20 wherein the reinforcing member is made from an elastic material.

30. (Original) An absorbent structure as set forth in claim 20 further comprising a second reinforcing member at least partially embedded in the absorbent member.

31. (Original) An absorbent structure as set forth in claim 20 in combination with an absorbent garment comprising an topsheet layer arranged for engagement with the body of a

KCC 4911  
K-C 17,719

wearer, and a liquid impermeable backsheet, the absorbent structure being generally disposed between the topsheet layer and backsheet.

32. (Original) An absorbent structure comprising an absorbent member at least partially made of fibers and a reinforcing member at least partially embedded in the absorbent member for maintaining the structural integrity of the absorbent member, the reinforcing member being connected to the absorbent member and at least partially gathering the absorbent member to form rugosities on a surface of the absorbent member.

33. (Original) An absorbent structure as set forth in claim 32 wherein the reinforcing member is elastically stretchable.

34. (Original) An absorbent structure as set forth in claim 33 wherein the reinforcing member is relaxed from a stretched condition in which connection of the reinforcing member to the absorbent member is made.

35. (Original) An absorbent structure as set forth in claim 32 wherein the absorbent member is gathered along a first axis extending generally lengthwise of the absorbent member and along a second axis extending generally widthwise of the absorbent member.

36. (Original) An absorbent structure as set forth in claim 32 wherein the basis weight of the absorbent member when the absorbent structure is stretched to remove gathering of the absorbent member is less than about 1200 grams per square meter.

KCC 4911  
K-C 17,719

37. (Original) An absorbent structure as set forth in claim 32 wherein the basis weight of the absorbent member when the absorbent structure is relaxed to gather the absorbent member is less than about 1600 grams per square meter.

38. (Original) An absorbent structure as set forth in claim 32 wherein the reinforcing member is adapted to return substantially to an original dimension for elongation of the absorbent structure in a direction up to about 300% of its relaxed length.

39. (Original) An absorbent structure as set forth in claim 32 wherein the reinforcing member comprises strands arranged to cross over one another at junctions to define openings in the web, the strands being joined to each other at least at some of the junctions.

40. (Original) An absorbent structure as set forth in claim 39 wherein the strands are arranged so that said openings are diamond shaped.

41. (Original) An absorbent structure as set forth in claim 32 further comprising a second reinforcing member at least partially embedded in the absorbent member.

42. (Original) An absorbent structure as set forth in claim 32 in combination with an absorbent garment comprising an topsheet layer arranged for engagement with the body of a wearer, and a liquid impermeable backsheet layer, the absorbent structure being disposed between the topsheet layer and backsheet layer.

43. (Original) An absorbent structure as set forth in claim 32 wherein the reinforcing member is elastically stretchable, and wherein the structure further comprises broken

KCC 4911  
K-C 17,719

connections between the fibers and reinforcing member in at least one of a machine direction, a cross direction and a thickness direction caused by contraction of the reinforcing member within the structure.

44. (Cancelled)

45. (Cancelled)

46. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Original) An absorbent structure for absorbing liquid, the absorbent structure comprising an absorbent member at least partially made of fibers and a reinforcing member at least partially embedded in the absorbent member for maintaining the structural integrity of the absorbent member, the reinforcing member having a non-uniform transverse width.

52. (Original) An absorbent structure as set forth in claim 51 wherein the reinforcing member has a peripheral shape generally conforming to a peripheral shape of the absorbent member.

53. (Original) An absorbent structure as set forth in claim 51 wherein the reinforcing member has a first wider portion embedded in a first wider portion of the absorbent member, the first portion of the reinforcing member having a transverse width greater than a transverse width of a second narrower portion of said reinforcing member and embedded in a second narrower portion of said absorbent member.

KCC 4911  
K-C 17,719

54. (Original) An absorbent structure as set forth in claim 53 wherein the reinforcing member is stretched in said first wider portion.

55. (Original) An absorbent structure as set forth in claim 54 wherein the reinforcing member is unstretched in said second narrower portion.

56. (Original) An absorbent structure as set forth in claim 54 wherein the reinforcing member is plastically deformed by stretching in said first wider portion.

57. (Original) An absorbent structure as set forth in claim 53 wherein said second narrower portion comprises a first reinforcing member section and a second reinforcing member section folded against said first reinforcing member section to form said second narrower portion.

58. (Original) An absorbent structure as set forth in claim 51 wherein reinforcing member comprise strands arranged in a pattern in which at least some of the strands intersect one another at junctions to define openings in the reinforcing members.

59. (Original) An absorbent structure as set forth in claim 51 wherein the reinforcing member has a shape selected from the group consisting of a generally hourglass shape and a generally T-shape.

60. (Original) An absorbent structure as set forth in claim 51 wherein the reinforcing member is relaxed from a stretched condition in which connection of the reinforcing member to the absorbent member is made.

61. (Original) An absorbent structure as set forth in claim 53 wherein the ratio of the width of said first wider

KCC 4911  
K-C 17,719

portion of the reinforcing member to the width of said second narrower portion of the reinforcing member is greater than 1.5:1.

62. (Original) An absorbent structure as set forth in claim 53 wherein the ratio of the width of said first wider portion of the reinforcing member to the width of said second narrower portion of the reinforcing member is greater than 2:1.

63. (Original) An absorbent structure as set forth in claim 51 further comprising a second reinforcing member at least partially embedded in the absorbent member.

64. (Original) An absorbent structure as set forth in claim 51 in combination with an absorbent garment comprising an topsheet layer arranged for engagement with the body of a wearer, and a liquid impermeable backsheet layer, the absorbent structure being disposed between the topsheet layer and backsheet layer.

65. (Original) An absorbent structure as set forth in claim 64 wherein the absorbent garment includes a crotch region adapted to fit a crotch of the wearer and a waist region adapted to fit at least a portion of a waist of the wearer, the reinforcing member being narrower in the crotch region than in the waist region.

66. (Cancelled)

67. (Cancelled)

68. (Cancelled)

69. (Cancelled)